

PATENT ABSTRACTS OF JAPAN

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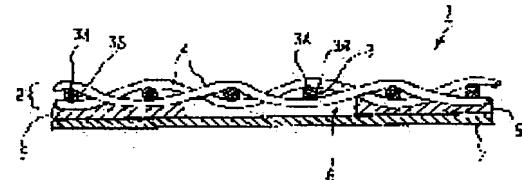
(21)Application number : 08-210469 (71)Applicant : KINESHIO:KK
(22)Date of filing : 23.07.1996 (72)Inventor : KASE KENZO

(54) BODY ADHESIVE TAPE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a body adhesive tape which can be piled up on the skin, is difficult to be removed even when sweated during excise, and has a good ventilation ability.

SOLUTION: This body adhesive tape is designed in such a manner that multiple adhesive agent layers 5 are formed at a certain gap 6 on the surface of a basic cloth 2 made of stretch wefts 3 and ordinary warp 4 so that the adhesive agent layers 5 are alternately curved to right and left in the longitudinal direction of a tape 1. The gap 6 has a good ventilation ability since the weave texture is exposed to the air and since the gap 6 has a meandering shape and longer than the tape 1. Since the adhesive agent layers 5 has also a meandering shape, they can respond to a tensile force in any direction due to body movement when they are adhered on any part of a body. The basic cloth 2 is water repellently finished and even when basic clothes are piled up, they do not absorb sweat and the upper tape is difficult to be removed.



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CLAIMS

[Claim(s)]

[Claim 1] Use as a base fabric the warp which usually carried out throwing of the fiber to flexible yarn, and the textile fabrics which usually consist of the woof of yarn, and make a binder layer into **** at the whole surface of this base fabric, and in the condition of having opened the predetermined gap and having stood in a row, in the lengthwise direction of a tape, make double ** surge to right and left by turns, and it is formed in them. The base fabric of a part with which the band-like binder layer was formed is body adhesive tape which there is no permeability and is characterized by holding the permeability by texture at the base fabric of the gap of the band-like adhesives layer which each adjoins, and a layer.

[Claim 2] Body adhesive tape according to claim 1 characterized by carrying out water repellent finishing to said base fabric.

[Claim 3] Said binder layer is body adhesive tape according to claim 1 characterized by being acrylic synthetic-resin material.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the body adhesive tape directly pasted up on the skin as a supporter, in order to start body adhesive tape, especially to prevent the failure on muscular and the other bodies by the sport.

[0002]

[Description of the Prior Art] Although it is known well that the force impossible in a sport will be applied and the failure on muscular and the other bodies will be encountered conventionally therefore, various kinds of supporters are used. However, since the configuration was fixed-sized, the supporter had the difficulty that protection to the part protruded from the form of a supporter could not be performed enough. Then, the adhesion flexible supporter as a tape-like supporter used [come], for example, shown in JP,5-45335,Y is developed by the invention-in-this-application person.

[0003]

[Problem(s) to be Solved by the Invention] Two troubles were discovered while using said adhesion flexible supporter. When it was made to cross in the shape of an X character etc., it piled up and *** was carried out, they were the trouble that the tape after sweat permeated and lays on top of a tape will separate, and the point that the result are satisfied with the mechanical drilling approach of a result was not obtained by reservation of permeability. Although it was thought that what is necessary was just to make adhesives powerful for the tape after piling up separates and twists and making it like, when the adhesive property of adhesives was made powerful, there was a problem that the effect on the skin arose. This invention can be repeated, stuck and **(ed) in view of those actual condition, and it is developed for the purpose of offering the body adhesive tape excellent in permeability.

[0004]

[Means for Solving the Problem] This invention solved said technical problem, and in order to attain the object, it provided the following technical means.

[0005] Namely, where used as the base fabric the textile fabrics which usually consist of the woof of yarn, it carried out water repellent finishing of this base fabric to the warp which usually carried out throwing of the fiber to flexible yarn, and it made the binder layer the whole surface of a base fabric with band-like, and it opened the predetermined gap and double ** is arranged in parallel the body adhesive tape with which, as for the base fabric of a part with which the binder layer was made to surge to right and left by turns, was formed in them in the lengthwise direction of a tape, and the band-like binder layer was formed, texture is blockaded, and the permeability by texture is held at the base fabric of the gap of a band-like binder layer and a layer -- since -- it changes.

[0006]

[Function] This invention constituted as mentioned above has the following operations.

[0007] First, since warp is an object like flexible yarn like a rubber thread, and cotton yarn which usually carried out throwing of the fiber, about 1.7 times as many elongation as this is possible for a base fabric. Since a binder layer is beltlike and it is surging by turns to the longitudinal

direction in the lengthwise direction of a tape, at a flat surface, it is the shape of bellows of a camera exactly, when pulled perpendicularly, bellows came to be extended, and since the binder has not adhered, as for the gap of a binder layer and a binder layer, the warp of a base fabric becomes [a texture hole] large open Lycium chinense by being extended. Moreover, as for the gap part to which the binder has not adhered in the ordinary condition, either, permeability is fully held. If especially the gap of a binder layer and a binder layer is a straight line-like perpendicularly, it is the same as the die length of a tape, but since it was made to wind by turns to a longitudinal direction, the die length of a gap becomes remarkably long from the die length of a tape, and, naturally the permeability in this gap is increasing. Moreover, it becomes [as opposed to / since neither a wrinkle nor slack arises on a tape even if it makes a tape expand and contract with bending in what kind of direction since a binder layer is also made to wind by turns to the shape not of a vertical straight line but a longitudinal direction, and it sticks, and it is not method-like / the longitudinal direction of a binder layer / of one / tensile force] in equal, and the area of a binder layer excels the area of a tape in adhesive strength at least. Even if pile up this tape in the shape of X etc., stick it, it carries out it, and sweat adheres to that part or it is flooded into water, since a base fabric has water repellence, it is piled up and stuck excluding water and a part does not peel it off.

[0008]

[Embodiment of the Invention] The gestalt of implementation of invention is explained with reference to a drawing. The top view in which drawing 1 shows a binder layer, and drawing 2 are sectional views. The body adhesive tape (henceforth a tape) 1 forms two or more binder layers 5, such as acrylic synthetic resin, in the whole surface of a base fabric 2, and forms gap 6 -- between each binder layer 5 and a layer 5. Although the plasticizer in the binder currently used for the binder layer 5 in the former etc. occasionally started the skin dry area, especially in this invention, the acrylic synthetic resin which cannot start skin roughness etc. easily was chosen. Since adhesion formation is carried out with a roller, the binder layer 5 can be easily formed in any complicated configurations. If the warp 3 of a base fabric 2 is an intertwisting ***** thing and flexible yarn 3A which consists of a rubber thread, and usual fiber 3B which consists of cotton yarn are pulled to straight side, it can be extended about 1.7 times as for a long time as an ordinary state. The yarn expanded and contracted like Wooley yarn (*****), of course can be used. The woof 4 is the usual yarn of cotton yarn. The plain weave of the base fabric 2 is carried out to the coarse mesh like gauze by this warp 3A and woof 3B. Therefore, a base fabric 2 is extended in the range in which warp 3A will be extended if it pulls to a longitudinal direction when this is made [of 5cm of ****] long and slender, and if a hand is lifted, it will return. Water repellent finishing is performed for this base fabric 2 by silicone oil etc. Water repellence will be given by this and will not carry out water to a base fabric 2 by it. Next, the fixed gap 6 is opened, in a longitudinal direction, right and left are crooked on the whole surface of a base fabric 2 by turns, and two or more band-like binder layer 5 -- is formed in it. Drawing 3 is the amplification top view of said gap 6 part. That is, the part in which binder layer 5 -- was formed is a gap 6 although texture is blockaded by binder layer 5 --. -- Since texture remains as it is as for a part, permeability is held. In drawing 2 , a sign 7 is a release paper which protects the binder layer 5.

[0009] When this tape 1 that consists of the above configuration also cuts die length to about 4 meters by width of face of about 5cm, it is sold in the condition of having wound around the axis and a double-width thing is used, it cuts and uses this for suitable die length and width of face.

[0010] Drawing 4 is what was used to the neck, and removes and sticks a release paper 7.

Drawing 5 shows the condition of having stuck on an ankle and the sole. Since it sweats for sports when two or more tapes 1 are stuck in piles like drawing 4 , what the base fabric 2 stuck upwards including sweat will come off. However, in this invention, since water repellent finishing has been performed for the base fabric 2 by silicone oil etc. and a base fabric 2 absorbs neither sweat nor water even if it sweats, and it pours water, even if it does not make adhesion of a binder powerful, the effectiveness which trouble does not produce is in adhesiveness. Next, since the base fabric 2 has exposed gap 6 -- between the binder layer 5 and the next binder layer 5 so that it may understand well by drawing 3 , the texture of the base fabric 2 has permeability. Moreover, when gap 6 -- is made into the shape of a straight line, the die length of a gap 6 is the

same as the die length of a base fabric 2, but since gap 6 -- has wound by turns to the longitudinal direction so that it may understand by drawing 1, the die length of a gap 6 is longer than the die length of a base fabric 2. Even if that is gap 6 -- of the same number, since the exposure area of texture increases more remarkably than the time of a straight line, it is excellent in permeability. Moreover, since binder layer 5 -- has wound, when sticking a tape 1 on the body, even if it sticks with bending, unreasonableness does not arise in binder layer 5 --, namely, even if it bends a tape 1 superficially, there is effectiveness which has turned at smoothly and which neither a wrinkle nor slack produces. Since this tape 1 is for protecting the body, it is stuck before a sport without lengthening a tape 1 to the part to which trouble tends to occur. Since there is an operation which is going to pull back the muscles which stand in a row at the skin which it is going to extend since there is a shrunken operation although extended reasonable [a tape 1] when elongation and the skin are extended by muscles in a sport, and it in the original condition, the failure which the force with the skin and muscles impossible for requires can be prevented. moreover, even if the external force is applied to the skin by sticking this tape 1, grind -- it can go out and a blow etc. can be made to ease The strength of the elasticity of said base fabric 2 can carry out change of strength, inside, and weakness by the strength of said flexible yarn 3A, and uses strength properly by the part which the body sticks. In this case, it can make it possible to distinguish for the sake of appearance immediately by classifying by color like red, yellow, and blue. Moreover, 2.5cm, 4cm, 5cm, 7.5 etc.cm of width of face of a tape 1, etc. can be set up so that it may use properly by the activity part. The width of face of the binder layer 5, a configuration, the width of face of a gap 6, a configuration, etc. can be set as arbitration. Moreover, said base fabric 2 can be made to install a deodorant, perfume, etc. to **** etc. An application is not limited only to a sport, either but can be used as the auxiliary implement of therapies over the body like Chinese medicine, such as a chiropractic therapy, for example, a tape for KINESHIO taping therapies.

[0011]

[Effect of the Invention] Since this invention was constituted as mentioned above, it has the following outstanding effectiveness.

[0012] 1. In order that neither sweat nor water can adhere easily and neither sweat nor water may carry out water to a base fabric when heavy **** is carried out since the base fabric was made into water repellence, it is effective in the tape stuck [was piled up and] and turned up not exfoliating.

[0013] 2. Since the raw material of a binder layer was used as acrylic synthetic resin, it is effective in the ability of the dry rough skin by the chemical constituent contained in it not to happen easily.

[0014] 3. There is effectiveness which can perform telescopic motion of the tape which made the binder layer band-like, was excellent in adhesiveness since it responded also to the tensile force from two or more directions after the binder layer has turned to two or more directions even if stuck on a part like a body throat since the considerable gap was opened and the plurality was made to wind right and left to the longitudinal direction of a tape, and suited the motion of muscles.

[0015] 4. Since a base fabric is exposed to the gap of a binder layer and a binder layer and texture is opened, it excels in permeability and there is effectiveness which *** cannot produce easily. Since this especially gap has wound, it is remarkably long rather than the die length of a tape, and it is effective in permeability increasing so much.

[0016] 5. Since a binder layer is formed with a roller, however the binder layer may have wound intricately, it can form easily, and there is effectiveness it is ineffective under a cost burden.

[Translation done.]

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TECHNICAL FIELD

[Field of the Invention] This invention relates to the body adhesive tape directly pasted up on the skin as a supporter, in order to start body adhesive tape, especially to prevent the failure on muscular and the other bodies by the sport.

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PRIOR ART

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TECHNICAL PROBLEM

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MEANS

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OPERATION

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the top view of the binder layer of a tape.

[Drawing 2] It is drawing of longitudinal section of a tape.

[Drawing 3] It is the amplification top view showing the gap part of a tape.

[Drawing 4] It is the perspective view showing the busy condition to a head.

[Drawing 5] It is the perspective view showing the busy condition to a guide peg.

[Description of Notations]

1 Body Adhesive Tape

2 Base Fabric

3 Warp

3A Flexible yarn

3B Usually, fiber

4 Woof

5 Binder Layer

6 Gap

7 Release Paper

[Translation done.]

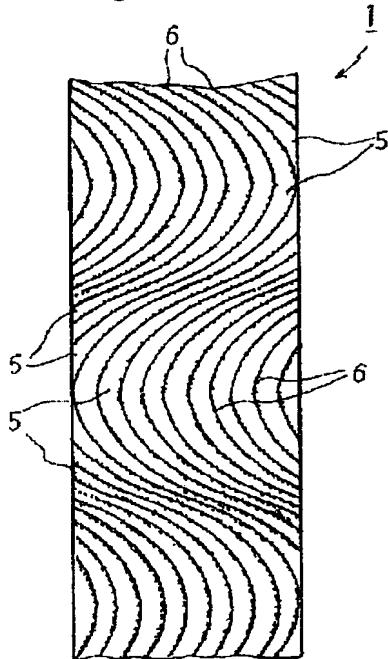
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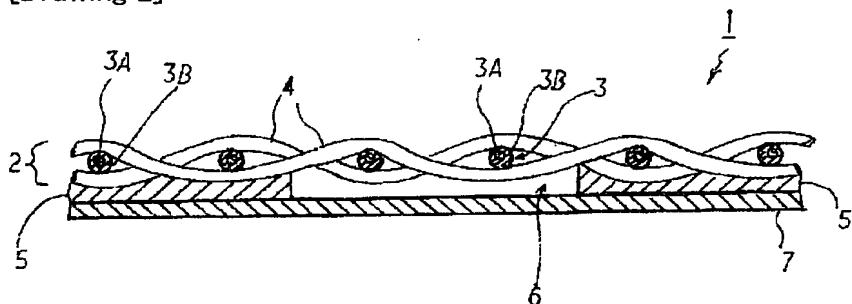
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DRAWINGS

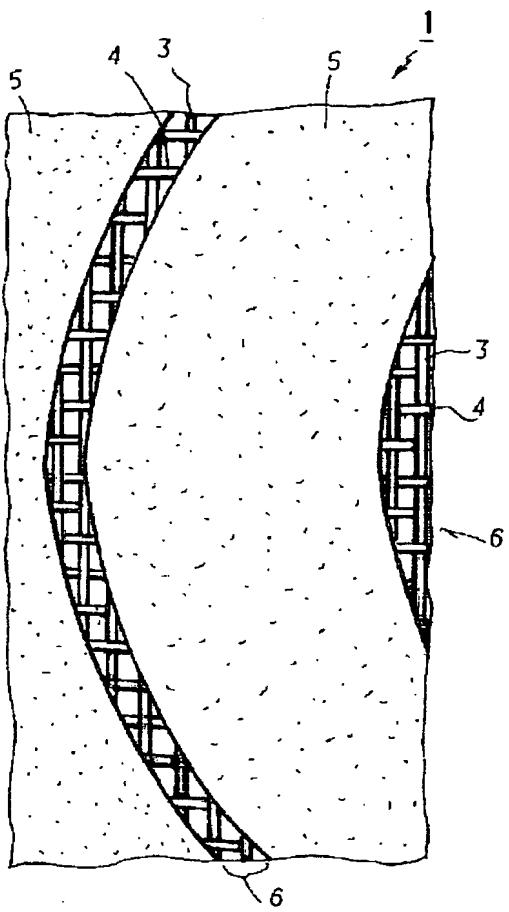
[Drawing 1]



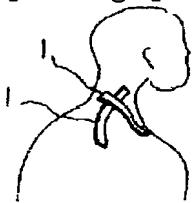
[Drawing 2]



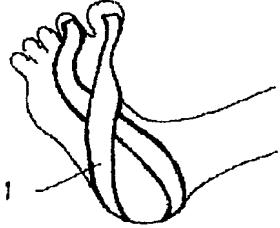
[Drawing 3]



[Drawing 4]



[Drawing 5]



[Translation done.]

(19)日本国特許庁 (JP)

(12) 公開特許公報 (A)

(11)特許出願公開番号

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A 6 1 F 13/02

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技術表示箇所

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(22)出願日

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(71)出願人 396016386

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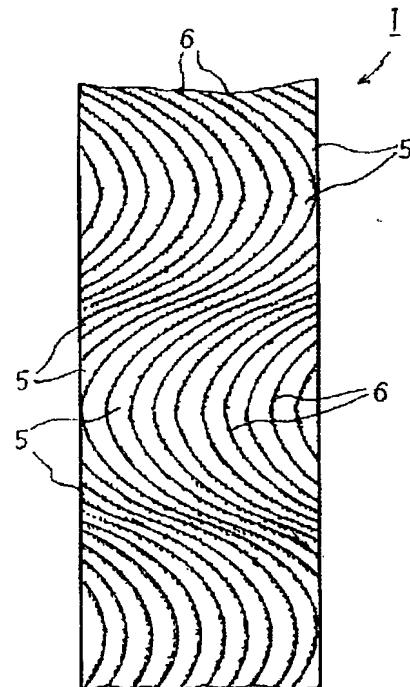
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(54)【発明の名称】 身体接着テープ

(57)【要約】

【課題】 この発明は皮膚に重ね合わせて接着してスポーツ時に汗をかいでも剥がれにくい接着性があり、それでいて通気性にすぐれた身体接着テープを提供することを目的としている。

【解決手段】 伸縮性のある経糸3と通常の緯糸4から成る基布2の一面に粘着剤層5…を複数、適度の間隙6をあけて、テープ1の長手方向に対して左右方向へ交互に曲がりくねるように形成した身体接着テープ1。間隙6部分は織目が露出しているから通気性があり、間隙6は曲がりくねっているので、テープ1の長さより長く、それだけ織目の露出が多く通気性に富んでいる。粘着剤層5…は曲がりくねっているので、身体のどの部位に貼っても身体の動きによるどのような方向からの引張力にも対応できる。基布2を撥水加工することにより重ね合わせて接着しても汗などを吸収せず、上部のテープが剥がれにくく。



において粘着剤層を左右へ交互にうねらせて形成して、帯状粘着剤層の形成された部分の基布は、織目が閉塞され、帯状粘着剤層と層の間隙の基布には織目による通気性が保持されている身体接着テープ、から成っている。

【0006】

【作用】上記のように構成されたこの発明は次のような作用を有している。

【0007】まず、経糸はゴム糸のような伸縮糸と綿糸のような通常繊維を撚糸した物なので、基布は1.7倍ぐらいの伸びが可能である。粘着剤層は帯状であって、テープの縦方向において左右方向へ交互にうねっているので、平面ではちょうどカメラの蛇腹状になっていて、縦に引張ると蛇腹が伸びたようになり、粘着剤層と粘着剤層の間隙は粘着剤が付着していないため、基布の経糸が伸びることによって織目孔が大きく開くことになる。また普通の状態でも粘着剤が付着していない間隙部分は通気性が充分に保持されている。特に粘着剤層と粘着剤層の間隙は縦に直線状であればテープの長さと同じであるが、左右方向へ交互に曲がりくねらせたので間隙の長さはテープの長さより著しく長くなり、当然に該間隙における通気性が増大している。また粘着剤層も縦直線状でなく左右方向へ交互に曲がりくねらせたものであるので、テープをどのような方向へ曲げながら伸縮させて貼っても、テープに皺や弛みが生じることがなく、粘着剤層の長手方向が1方的でないため引張力に対して均等的になり、テープの面積より粘着剤層の面積が少なくて接着力を優れている。このテープをX状等に重ね貼りし、その部分に汗が付着し或いは水の中に漬かっても基布は撥水性があるため水を含まず、重ね貼り部分が剥げることはない。

【0008】

【発明の実施の形態】発明の実施の形態を図面を参照して説明する。図1は粘着剤層を示す平面図、図2は断面図である。身体接着テープ（以下テープという）1は基布2の一面にアクリル系合成樹脂等の粘着剤層5を複数形成し、各粘着剤層5と層5の間に間隙6…を形成したものである。従来においては粘着剤層5に使用されている粘着剤中の可塑剤などが皮膚荒れを起すことがたまにあったが、この発明においては、特に皮膚荒などを起しにくいアクリル系合成樹脂を選択した。粘着剤層5はローラによって付着形成させるのでどのような込み入った形状でも容易に形成することができる。基布2の経糸3はゴム糸から成る伸縮糸3Aと綿糸から成る通常繊維3Bとを撚合わせたもので、長手に引っ張ると常態より1.7倍ぐらい長く伸びることができる。もちろんウエーリー糸（縫縮糸）のように伸縮する糸を使用することができる。緯糸4は綿糸の通常糸である。基布2はこの経糸3Aと緯糸3Bとでガーゼのように粗目に平織されている。従ってこれを幅約5センチの細長いものとしたとき、長手方向に引張ると、経糸3Aの伸びる範囲で基布

【特許請求の範囲】

【請求項1】伸縮糸と通常繊維を撚糸した経糸と、通常糸の緯糸から成る織布を基布とし、該基布の一面に粘着剤層を帯条としきつ複条を所定間隙をあけて並列した状態でテープの縦方向において左右へ交互にうねらせて形成して、帯状粘着剤層の形成された部分の基布は通気性がなく、各隣接する帯状接着剤層と層の間隙の基布には織目による通気性が保持されていることを特徴とする身体接着テープ。

【請求項2】前記基布には撥水加工をしたことを特徴とする請求項1記載の身体接着テープ。

【請求項3】前記粘着剤層はアクリル系合成樹脂材であることを特徴とする請求項1記載の身体接着テープ。

【発明の詳細な説明】

【0001】

【発明の属する技術分野】この発明は身体接着テープに係り、特にスポーツによる筋肉その他身体上の障害を予防するためにサポータとして皮膚に直接接着する身体接着テープに関する。

【0002】

【従来の技術】従来、スポーツ中に無理な力がかかる筋肉その他身体上の障害が起ることはよく知られているが、そのために各種のサポータが使用されている。しかし、サポータは形状が一定化するためにサポータの形からはみ出す部分への保護が充分できないという難点があった。そこでテープ状のサポータが使用されるようになり、例えば実公平5-45335号公報に示すような接着伸縮サポータが本願発明者によって開発されている。

【0003】

【発明が解決しようとする課題】前記接着伸縮サポータを使用している中で二つの問題点が発見された。それは、X字状等にクロスさせて重ね貼りをした場合に、汗がテープに滲みて、重ね合わせた上のテープが剥がれてしまうという問題点と、通気性の確保に機械的な孔開け方法では満足する結果が得られないという点であった。重ねた上のテープが剥がれないようにするには接着剤を強力にすればよいと考えられるが、接着剤の接着性を強力にすると肌への影響が生じるという問題があった。この発明はそれらの実情に鑑みて重ね貼りができ、通気性にすぐれた身体接着テープを提供することを目的として開発されたものである。

【0004】

【課題を解決するための手段】この発明は前記課題を解決し、目的を達成するために次のような技術的な手段を講じた。

【0005】すなわち、伸縮糸と通常繊維を撚糸した経糸と、通常糸の緯糸から成る織布を基布とし、該基布を撥水加工し、基布の一面に粘着剤層を帯状としきつ複条を所定間隙をあけて並列した状態で、テープの縦方向に

2が伸びて、手を離すと元に戻る。該基布2をシリコン油等により撥水加工を施す。これによって基布2に撥水性が付与されて含水しなくなる。次に基布2の一面に複数の帯状の粘着剤層5…を、一定の間隙6を開けて、長手方向において左右に交互にくねらせて形成する。図3は前記間隙6部分の拡大平面図である。すなわち、粘着剤層5…が形成された部分は織目が粘着剤層5…によって閉塞されているが、間隙6…部分は織目がそのままなので、通気性が保持されている。図2において符号7は粘着剤層5を保護する離型紙である。

【0009】以上の構成から成るこのテープ1は、広幅のものを例えば5センチぐらいの幅で長さも例えば4メートル位に切断して、芯体に巻いた状態で販売され、使用するときは、これを適当の長さ、幅に切って使用する。

【0010】図4は頸筋に対して使用したもので、離型紙7を剥がして貼る。図5は足首と足裏に貼った状態を示す。図4のように複数のテープ1を重ねて貼った場合、スポーツでは汗をかくので、基布2が汗を含んでしまって上に貼ったものが剥げてしまう。しかしこの発明においては、基布2をシリコン油等により撥水加工をしてあるため、汗をかいでも水をかけても基布2が汗や水を吸収することがないから、粘着剤の粘着力を強力にしなくとも粘着性に支障が生じない効果がある。次に、図3でよく判るように、粘着剤層5と隣の粘着剤層5の間の間隙6…は基布2が露出しているため、その基布2の織目は通気性がある。また間隙6…を直線状にした場合は基布2の長さと間隙6の長さは同じであるが、図1で判るように間隙6…が左右方向へ交互に曲りくねっているために間隙6の長さは基布2の長さより長くなっている。そのことは同じ本数の間隙6…であっても、織目の露外面積は直線の時より著しく増大するから通気性に優れている。また粘着剤層5…が曲りくねっているため、テープ1を身体に貼るときに曲げながら貼っても粘着剤層5…に無理が生じず、すなわちテープ1を平面的に曲げてもスムーズに曲がって皺や弛みなどが生じない効果がある。このテープ1は身体を保護するためのものなので、スポーツの前に、支障の起きやすい部位にテープ1を伸ばさないで貼る。スポーツ中に筋肉が伸び、皮膚が伸びると、テープ1も無理なく伸びるが、縮む作用があるので、伸びようとする皮膚とそれに連なる筋肉を元の状態に引き戻そうとする作用があるから、皮膚、筋肉に無理な力のかかる障害を予防することができる。またこのテープ1を貼ることにより、外的な力が皮膚にかかるても、擦れ、切れ、打撲等を緩和させることができる。前記基布2の伸縮性の強弱は、前記伸縮糸3Aの強弱によって強・中・弱の変化をさせることができ、身体の貼る部位によって強弱を使い分ける。この場合、赤・黄・青のように色分けすることによって、すぐに外見で判別することができるようになることができる。またテ

ープ1の幅は、例えば2.5センチ、4センチ、5センチ、7.5センチ等、使用部位によって使いわけるように設定することができる。粘着剤層5の幅、形状、間隙6の幅、形状等も任意に設定することができる。また、前記基布2には、汗臭などに対する消臭剤、香料などを添着させることができる。用途も、スポーツのみに限定されず、カイロプラクティック療法等漢方的な身体に対する療法の補助具、例えばキネシオテーピング療法用テープとして使用することができる。

【発明の効果】この発明は前記のように構成されたので、次のようなすぐれた効果を有している。

【0012】1. 基布を撥水性にしたから、重ね貼りをしたときに、汗や水が付着しにくく、基布に汗や水が含水しないため、上に重ね貼りしたテープが剥離しない効果がある。

【0013】2. 粘着剤層の素材をアクリル系合成樹脂としたので、その中に含まれる化学的成分による肌あれが起りにくいという効果がある。

【0014】3. 粘着剤層を帯状とし、その複数を相当の間隙を開けて、テープの長手方向に対して左右に曲りくねらせたため、身体のどのような部分に貼着しても粘着剤層が複数の方向を向いた状態で、複数の方向からの引張力に対しても対応できるため、粘着性にすぐれて筋肉の動きに合ったテープの伸縮ができる効果がある。

【0015】4. 粘着剤層と粘着剤層との間隙に基布が露出して織目が開放されているため、通気性に優れ、蒸れが生じにくい効果がある。特に該間隙は曲がりくねっているため、テープの長さよりも著しく長くなっています、それだけ通気性が増大している効果がある。

【0016】5. 粘着剤層はローラにより形成するので、粘着剤層がどのように複雑に曲がりくねっていても容易に形成でき、コスト負担にならない効果がある。

【図面の簡単な説明】

【図1】テープの粘着剤層の平面図である。

【図2】テープの縦断面図である。

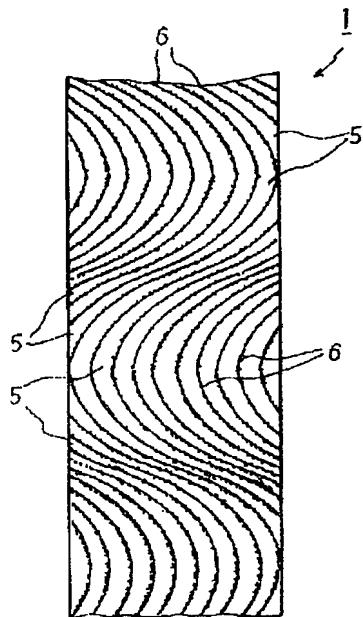
【図3】テープの間隙部分を示す拡大平面図である。

【図4】頸への使用状態を示す斜視図である。

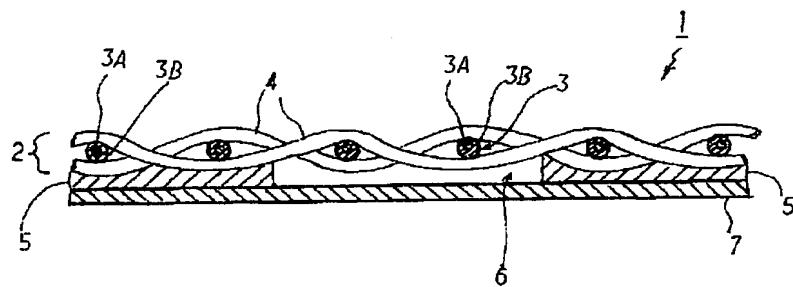
【図5】足への使用状態を示す斜視図である。

1	身体接着テープ
2	基布
3	経糸
3 A	伸縮糸
3 B	通常繊維
4	緯糸
5	粘着剤層
6	間隙
7	離型紙

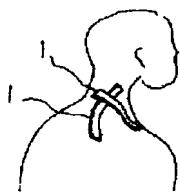
【図 1】



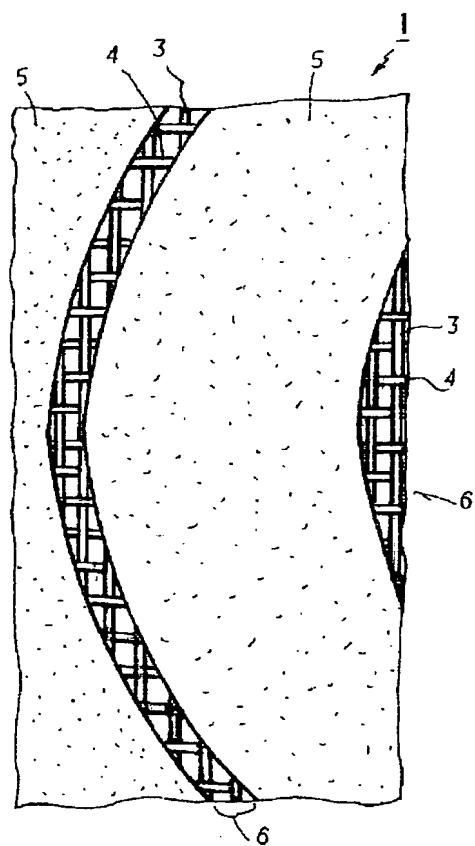
【図 2】



【図 4】



【図 3】



【図 5】

